CHAPTER 115

INSTRUCTIONS FOR AIR EMISSION LICENSE APPLICATION

State of Maine
Department of Environmental Protection
Bureau of Air Quality

(Revised 4/97)

Fill out all applicable sections of the forms. Some applications will need to include information in addition to the forms. The additional information could consist of a BPT or BACT analysis, further description of the facility or a specific emission unit, calculations, plot plans, a modeling analysis, etc. See Section I for a more complete list of possible attachments.

INSTRUCTIONS for SECTION A: FACILITY INFORMATION

Facility Name: The actual facility name as it would appear on a license.

Emission Location: The physical location of the facility, including city/town and county.

Facility Contact/Title/Phone/Fax: The name and title/position of the person to contact regarding the application. Also, the phone and fax numbers of the contact person.

Facility Mailing Address: The mailing address of the facility, including city/town and zip code.

Facility Phone Number: Main phone number of the facility.

Facility and Application Description: A description of the facility operations and the purpose for the application (ie- renewal, amendment to add a wood fired boiler, etc.).

Current License Number (if an existing facility): The number of the air emission license the facility is currently operating under.

Application Number: To be filled in by the Department.

Checklist: These requirements are necessary for the Department to accept the application for processing and should be completed then checked off prior to submitting the application.

- **Application completed** - the applicable portions of the application forms should be filled out.
- **Copy sent to town and date sent** - a copy of your air emission license application must be filed for public inspection with the town or city clerk of your municipality.
- **Public notice published** - a public notice of intent to file must be published once in a local newspaper (see Public Notice of Intent to File form).
- **Enclose public notice tear sheet** - a clipping or photocopy of the notice from the paper must be submitted with the application.
- **Signed signatory form** - the Responsible Official must sign the application form (see Section J).
- **If applicable, notify abutting landowners** - abutters must be notified for major modifications.
- **If applicable, enclose check for fee** - new sources must enclose a fee with the application (see enclosed fee information for new sources only).

INSTRUCTIONS for SECTION B: FUEL BURNING EQUIPMENT

Emissions Unit Table: - Fill out the table for fuel burning equipment, not including insignificant activities (see Appendix B of Chapter 115 for a list of insignificant activities), incinerators, or processes with fuel burning equipment as an integral part of the process. For incinerators see Section C and for process equipment see Section D.

List:

- **Emission unit number** - number to identify emission unit. You may use in-house identification labels.

- **Type of equipment** - boiler, emergency generator, space heater, etc.
- **Maximum design capacity** - maximum design capacity in MMBtu/hr.
- **Maximum firing rate** - gal/hr, scf/hr, tons wood/hr, etc. (include units in table).
- **Fuel type** - type of fuel burned, include sulfur content for oil. List all fuels if more than one type of fuel is burned.
- **Date of manufacture** - date when the equipment was manufactured. Include day, month and year, if known.
- **Date of installation** - date when the equipment was installed. Include day, month and year, if known.
- **Stack #** - the number of the stack which vents the emission unit.
- **Control device** - type of air pollution control equipment, ie. ESP, scrubber, multicyclone, etc.

Use sequential numbering, do not repeat numbers (except for common stacks). In general, list emission units separately; do not combine units in one entry. One boiler may have different rated capacities for different fuels which can be listed separately in the table.

Control Device Descriptions for Fuel Burning Equipment: For the control devices identified in the fuel burning equipment table, identify the name of the control device, the emission unit being controlled, the pollutant(s) it is controlling and the efficiency of the control equipment. Control efficiency should be from 0 to 100%, indicating the minimum percent of emissions conveyed to the control equipment that must be reduced by the control equipment, as required by license, design or other requirement.

Monitors for Fuel Burning Equipment: Fill out the table for any fuel burning equipment which has emission monitors required by existing license, state or federal regulations. Include the emission unit number, the type of monitor, the data the monitor measures, the installation date, and the monitor location. Monitor examples include CEM (continuous emissions monitors) for NO_X, COM (continuous opacity monitors) for opacity, O_2 monitors for operational purposes, etc.

INSTRUCTIONS for SECTION C: INCINERATORS

Incinerator Table: For each incinerator fill in the table with the following information:

- **Incinerator type** - describe the type of incinerator (ie medical waste, municipal solid waste, sewage sludge, etc.).
- **Date of manufacture** - date when the incinerator was manufactured. Include day, month and year, if known.
- **Date of installation** - date when the incinerator was installed. Include day, month and year, if known.
- **Number of chambers** - the number of chambers in the unit.
- **Maximum Design Feed Rate** - the maximum weight of the waste charged per load in pounds.
- **Waste type** - the type of waste burned in unit. Identify any specific chemicals/materials and generic description such as pathological, infectious, municipal solid waste, sewage sludge, etc. List waste type category according to the definition in Maine Air Regulations Chapter 100 (i.e. I, II, III, etc.).
- **Maximum Design Combustion Rate** - the rate at which the unit combusts waste as specified by the manufacturer in pounds per hour.
- **Heat recovery** - indicate if the incinerator is equipped with a heat recovery unit of any type, internal or external.
- **Retention time** - provide the retention time as specified in an existing license or by the manufacturer.
- **Automatic feeder** - indicate if the unit has an automatic or manual feed system.
- **Temperature range** - the temperature operating range for the primary and secondary chambers in °F.
- **Auxiliary burners, primary and secondary** - for any auxiliary burners in the primary or secondary (afterburner) chamber provide the maximum rating of each burner in MMBtu per hour and the fuel type and maximum sulfur content, if any (natural gas, #2 fuel at 0.35% S, etc.).

- **Annual Waste Combusted** - Include annual waste combusted for the preceding year. Indicate the year and the units (ie. tons).
- **Pollution control equipment** - type of air pollution control equipment, ie. electrostatic precipitator, baghouse, cyclone, scrubber, afterburner, adsorber, etc.
- **Stack #** - the number of the stack which vents the incinerator.
- **Monitors** - list any monitors on the unit such as temperature recorder.

INSTRUCTIONS for SECTION D: PROCESS EQUIPMENT

Process Equipment Table: Fill out the table for process equipment, not including insignificant activities (see Appendix B of Chapter 115 for a list of insignificant activities). Included on this table should be process emission units that also have a fuel component (drying oven, process heater, etc.). See associated fuel burning equipment table below.

For the process equipment table, list:

- **Emission unit number** - number to identify the emission unit. You may use in-house identification labels.
- **Type of equipment** - rock crusher, spray booth, finishing line, etc.
- **Maximum raw material process rate** - name the raw material and the maximum design rate of processing , ie. 1.2 gallons per hour of coating, 1,000 feet per minute of paper, etc.(include units in table).
- **Maximum finished material process rate** - name the finished material and the maximum design rate of processing, ie. 1,000 feet per minute of printed paper, 100 lbs per hour of chemical xyz, etc. (include units in table).
- **Date of manufacture** - date when the equipment was manufactured. Include day, month and year, if known.
- **Date of installation** - date when the equipment was installed. Include day, month and year, if known.
- **Stack #** - the number of the stack which vents the emission unit. Indicate fugitive if their is no stack.

- **Control device** - type of air pollution control device, ie. water sprays, scrubber, multicyclone, etc.

Use sequential numbering, do not repeat numbers (except for common stacks). In general, list emission units separately; do not combine units in one entry.

Control Device Descriptions for Process Equipment: For the control devices identified in the process equipment table, identify the name of the control device, the unit is controlling, the pollutant(s) it is controlling and the efficiency of the equipment. Capture efficiency should be from 0 to 100%, indicating the minimum percent of total emissions from the emission unit that must be captured by the ventilation/duct system and conveyed to the control equipment, as required by license, design or other requirement. Control efficiency should be from 0 to 100%, indicating the minimum percent of emissions conveyed to the control equipment that must be reduced by the control equipment, as required by license, design or other requirement.

Associated Fuel Burning Equipment Table: Fill in this table for fuel burning equipment integral to a process (dryers, etc.). Section B should be filled in for fuel burning equipment not integral to a process, such as a boiler or engine.

- **Emission unit #** - number to identify unit. You may use in-house identification labels.
- **Type of equipment** - dryer, etc.
- **Maximum design capacity** - maximum design capacity in MMBtu/hr.
- **Maximum firing rate** - gal/hr, scf/hr, tons wood/hr, etc.(include units in table).
- **Fuel type** - type of fuel burned, include sulfur content for oil. List all fuels if more that one type of fuel is burned.
- **Stack #** - number to identify the stack.

Associated Chemical Usage Table: Fill out this table for the compounds used in the process that contribute to air emissions.

- **Process** - describe the process in which the chemical is used.

- **Chemical compound used in process** - list the chemical used by name (trade name if appropriate).
- **Actual compound usage** - note the current average annual usage in gallons or pounds (include units in table).
- **Hazardous chemical(s) in compound** - list any hazardous chemicals present in the chemical compound used in the process (see Appendix B of Chapter 115 of the Department's regulations for a list of HAPs).
- **Percentage VOC** - percentage of VOC present in the chemical compound. Specify units: by weight or volume (see Volatile Organic Compound definition in Chapter 100 of the Department's regulations).
- **Percentage of HAP** - percentage of any hazardous chemicals present in the chemical compound used in the process. Specify units: by weight or volume.
- **Total VOC Emitted** - the total amount of VOC emitted by this chemical based on current average annual usage (lb/year).
- **Total HAP Emitted** - the total amount of HAP emitted by this chemical based on current average annual usage (lb/year).

Describe the method of recordkeeping used for HAPs and VOCs. Examples include monthly mass balances from purchase records, monitor data, etc.

Describe the assumptions used to calculated VOC emissions if 100% volatility is not used.

INSTRUCTIONS for SECTION E: STACK DATA

Stack Data Table: For stacks at the facility associated with emission units described in the application, include the height of the stack in meters or feet above ground level, the inside diameter of the stack in meters or feet, the exit temperature in °F (if known) and the flow rate in cubic meters per second (if known) in either actual or standard m^3/s or ft^3/s.

INSTRUCTIONS for SECTION F: ANNUAL FACILITY FUEL USE

Annual Fuel Use: Include annual fuel use data by month for the preceding year. Indicate the emission units

associated with the fuel listed. Include the average percent sulfur for oil and the average moisture content for wood. Include all fuels, using additional columns if necessary. Indicate the units of the fuel (gallons, tons, scf, etc.).

INSTRUCTIONS for SECTION G: LIQUID ORGANIC MATERIAL STORAGE

Liquid Organic Material Storage Table: Fill in this table for liquid organic material storage tanks (ie. bulk gasoline terminals). One tank may be listed more than once if various materials with different characteristics are stored.

- **Emission unit #** - number to identify the emission unit. You may use in-house identification labels.
- **Above or below ground** - identify if above ground or below ground storage.
- **Type** - identify the type of tank design and type of roof (i.e. riveted or bolted; fixed roof or internal floating roof, etc.).
- **Physical description, age** - number of years the tank has existed.
- **Physical description, color** - color of the tank and its condition, (i.e. white with light rust).
- **Dimensions, height** - the height of the tank in feet.
- **Dimensions, diameter** - the diameter of the tank in feet.
- **Capacity** - the maximum amount of liquid capable of being stored in the tank in gallons.
- **Construction type** - construction material of the tank, ie. steel, fiberglass, etc.
- **Materials stored, name** - the specific type of organic material(s) being stored, (i.e., alcohol is not a sufficient description - methanol, isopropanol, ethanol, etc. is required). If the material is a combination of organics, identify components as much as possible; for example, fuels can be specified by type and grade.
- **Materials stored, vapor pressure and temperature** - the vapor pressure (psia) of the material being stored at the storage temperature. Also indicate average storage temperature.

- **Materials stored, RVP** - for gasoline only, specify the RVP of the material. If more than one, specify each.
- **Materials stored, total oxygen content** - for oxygenated gasoline, specify the total oxygen content (percent by weight) in the fuel.
- **Materials stored, oxygenate name** - for oxygenated gasoline, specify the name of the oxygenate(s) in the fuel.
- **Materials stored, annual throughput** - the highest yearly throughput, in gallons, for the material stored in the tank.
- **Loading** - indicate how organic material is transferred to the tank (ie, truck, ship, barge, etc.).
- **Transferring** - indicate how organic material is transferred from the tank (ie., to truck, to ship, to pipeline, etc.).
- **Control equipment** - type of air pollution control device, ie. floating roof, carbon adsorption, thermal oxidizer, etc.

INSTRUCTIONS for SECTION H: MISCELLANEOUS

Equipment Description: Describe any equipment, activities, or other emission sources that did not fit into any of the above categories. Indicate the pollutant emitted and a description of any air pollution control devices. You may attach additional sheets if necessary.

INSTRUCTIONS for SECTION I: LIST OF ATTACHMENTS

Check off all attachments that are included in this submittal. These attachments should be clearly labeled and the label noted on the checklist page for reference.

A *Best Practical Treatment (BPT) analysis* is required for all renewals. If emissions are being controlled by pollution control apparatus which was installed less than 15 years prior to the date of license application approval the applicant shall submit a summary of the pollution control apparatus for those emission sources. If the pollution control apparatus has been installed 15 years or more from the date of license application approval, the applicant must

demonstrate that each emissions unit is receiving BPT. The BPT analysis shall include a review of methods which control or reduce emissions of regulated pollutants to the lowest possible level considering:

- the then existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

A *Best Available Control Technology (BACT) analysis* is required for new sources and modifications. BACT means an emission limitation (including a visible emissions standard) based on the maximum degree of reduction for each pollutant emitted from or which results from the new or modified emissions unit which the Department on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such emissions unit through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of each pollutant.

INSTRUCTIONS for SECTION J: SIGNATORY REQUIREMENTS

The application must be signed by a designated Responsible Official.

"Responsible official" means one of the following:

A. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(1) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(2) The delegation of authority to such representatives is approved in advance by the permitting authority;

B. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

C. For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).